

BEFORE, DURING AND AFTER A FLOOD

Get details at www.kingcounty.gov/floodservices



516 Third Avenue, Room 1200
Seattle, WA 98104

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Before a flood

- ✓ **Know your flood hazard.** If you were mailed this newsletter, your home or property is in a floodplain. For details go to:
 - www.kingcounty.gov/IMAP or call 206-477-4732.
 - www.floodsmart.gov or call 1-888-379-9531.

- ✓ **Buy flood insurance.** Standard homeowner insurance does not cover loss caused by flooding and there is a mandatory 30-day waiting period on new policies.

- ✓ **Protect yourself and your family:**
 - Update emergency plans for your family, farm or business.
 - Know several routes from your home or business to high ground.
 - Pick a meeting place in case family members are separated.
 - Pick an out-of-state friend or relative to call with info if local lines are busy.
 - Assemble an emergency kit (see box).
 - Talk to neighbors about flood preparedness, previous experiences and any special needs you or they may have for assistance.

- ✓ **Protect your property from flood hazards:**
 - Figure out how and when you'd move vehicles, equipment, livestock or pets to higher ground.
 - Store valuables and household chemicals above flood levels.
 - Seal and secure underground storage tanks.
 - Install check valves in building sewer traps to prevent flood waters from backing up in sewer drains.
 - Keep street drains, storm grates and flap gates free of leaves and debris.
 - Sandbag materials can be purchased from hardware stores and sandbag suppliers in advance. Watch a video on how to fill and stack sandbags at www.kingcounty.gov/floodservices.

During a flood

- ✓ **Do not walk, wade or drive through flooded areas.** Turn around. Don't drown.

- ✓ **If your vehicle stalls in a flooded area, abandon it as soon as possible and walk back the way you came to safety.**

- ✓ **Call the King County Flood Warning Center** to find out where free emergency sandbag supplies are available.

- ✓ **Be prepared for an evacuation notice from authorities.** If advised to evacuate, do so immediately. Follow recommended evacuation routes, as shortcuts may be blocked.

- ✓ **If you are unable to safely leave your home or a building due to rapidly rising waters, call 911 for help.** Then move to a higher floor or to the roof. Take warm, weatherproof clothing, a flashlight, a mobile phone and a portable radio.

- ✓ **When flooding is imminent, but only if time permits:**

- Close your main gas valve.
- Turn off all utilities in your building at the main power switch. Do not touch any electrical equipment unless it is in a dry area or you are standing on a piece of dry wood while wearing rubber-soled shoes and rubber gloves.
- Record flood statistics such as time, gage reading, and local flood elevations for future use in understanding flooding in your neighborhood. Include specific observations at your home or business.

After a flood

- ✓ **Before re-entering your home, be cautious of potential structural damage, potential gas leaks, electrical shorts and live wires.**

- ✓ **Have a professional check your heating system electrical panel, outlets and appliances for safety before using.** Call the gas company to have the gas turned back on.

- ✓ **Find out the procedures for safe clean-up** of household items, food, water supply and property.

- ✓ **Document your losses.** Photograph damages and record repair costs. Contact your insurance agent for flood loss claims.

- ✓ **Mark the highest point where water was in your home or damaged structure.**

- ✓ **Pump out flooded basements gradually** (about one-third of the water per day) to avoid structural damage.

- ✓ **Remove and dispose of sandbags properly.**

- ✓ **Check your local news outlets for updates** on disaster assistance and registration procedures.



EMERGENCY KIT SUPPLIES

- ✓ Battery or crank-operated radio and extra batteries.
- ✓ First aid supplies and a whistle.
- ✓ Flashlight with extra batteries.
- ✓ Copies of important documents in a plastic bag (driver's license, insurance information, family bank and other contact information).
- ✓ Several days' worth of water and non-perishable food for your family and animals.
- ✓ Warm clothing, sturdy shoes/boots and blankets.
- ✓ Personal hygiene and sanitation supplies.
- ✓ Prescription medicines.
- ✓ Comfort items for children (blanket, books, toys).

Dos and Don'ts of Protecting the Floodplain

- **Do build right from the start.** Development is regulated to protect floodplains. Building, construction repairs or improvements, grading, excavation and fill all require permitting. Repairs or improvements to an existing structure that exceed 50 percent of its value are required to be flood protected and meet regulatory standards. Before starting a project, or to report illegal development, contact the King County Department of Permitting and Environmental Review at 206-296-6600 or go to www.kingcounty.gov/permits.

- **Do report illegal dumping.** From chemicals to garbage to household appliances and furniture, illegal dumping pollutes our environment and can also block floodways. To report illegal dumping contact the Illegal Dumping Hotline at 206-296-SITE (7483); toll free at 1-866-431-7483; or go to www.kingcounty.gov/dumping.

- **Don't drip and drive.** Vehicles drip an estimated 7 million quarts of motor oil into the Puget Sound watershed each year. Oil and other petroleum products can harm wildlife and habitat. When it rains, stormwater runoff carries petroleum products to rivers, streams, lakes and Puget Sound. For tips and referrals for fixing leaks go to www.fixcarleaks.org.



Take the Flood Hazard Quiz?

- 1 Do you live in a 100-year floodplain?
- 2 Do you live behind a levee?
- 3 Do you live in a channel migration zone?

If you answered "I don't know" to any of the above questions, check out these four ways to get more information at www.kingcounty.gov/flood about flood hazards affecting where you live:

- 1 **IMap** – Using the hydrographic information map layer, view floodways, the 100-year floodplain, channel migration hazard areas for rivers and aerial photos.
- 2 **FEMA Flood Hazard Maps** – Find local Flood Insurance Rate Maps (FIRMs), learn how to read them, or request a map change.
- 3 **Flood photo viewer** – Look up historical photos of King County floods.
- 4 **Flood inundation viewer for the Cedar River** – View a variety of potential flooding scenarios and associated inundation along the Cedar River.



HOW CAN I HELP?

A King County specialist is available to assist you by phone with looking up specific property and obtaining Flood Elevation Certificates. Call 206-477-4732



If you received this brochure by mail, your property is in or near a floodplain.

2015 - 2016

FLOOD UPDATE

Flood Warning Information for Major Rivers in King County



Message from the Flood Control District:

You may have heard from weather

forecasters that in King County we are expecting an El Niño weather pattern this year, which means a warmer and drier winter. This does not mean we won't experience flooding. Only seven years ago we had record flooding that resulted in evacuation orders for many local residents. If you received this brochure it means your property is located in a floodplain and you need to be prepared. This brochure contains all the information you need to take the necessary steps to be prepared. Here are some tips for you to follow with details included elsewhere in the brochure:

- Assemble a basic emergency kit for your home and identify an out-of-state contact and emergency meeting place.
- Sign up for free Flood Alerts by phone, text or email or download the Flood Warning App.
- Buy flood insurance now. Standard insurance policies do not cover flood damage and a new policy takes 30 days to take effect.
- Do not walk or drive through standing flood water to avoid being stranded or drowning.
- Store valuables high up and move vehicles and equipment to high ground before flood waters rise.

During a flood event you can call the King County Flood Warning Center 24-hours a day with your flood concerns and questions at 206-296-8200 or 1-800-945-9263.

Our rivers remain a serious flood risk regardless of the forecast. Please take advantage of the available tools for your safety and prepare now for the possibility of severe flooding.

Reagan Dunn, Chair
King County Flood Control District
www.kingcountyfloodcontrol.org



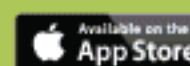
Rivers map poster inside!

Reducing flood risks, protecting people and property King County Flood Control District at work near you

- **Snoqualmie-Skykomish Basin** – A major project to reconstruct about 1,100 feet of river bank to protect the Snoqualmie Valley Trail and State Highway 203 began this past summer. The Sinnema Quale project will reduce flood risks and long-term costs by stabilizing the river bank, previously reinforced with old car bodies – hence the nickname "car body curve." The South Fork Snoqualmie Corridor Plan and Tolt River Corridor Plan continue to progress with significant public involvement taking place towards shaping long-term flood risk reduction actions.
- **Cedar River** – The Cedar River Corridor Plan, to identify, coordinate and implement projects to achieve long-term flood risk reductions goals is underway and in 2015 was awarded a grant from the National Park Service. The Elliott Bridge Reach Mitigation Project between SR 169 and SE Jones Place near 154th Place SE will restore about four acres of active floodplain, adding flood storage capacity, reducing downstream flood risks and improving aquatic habitat.
- **Green River** – The Briscoe Desimone Levee Improvement Project is a four-phase effort to repair about 4,450 feet of levees to reduce flood risks and protect public safety in Kent, Tukwila, and Renton. Also in Kent, design is underway for the Lower Russell Road Levee Setback project that will improve flood protection by replacing and upgrading 1.4 miles of existing levee and revetment with construction scheduled for 2017.
- **White River** – Construction is planned to start in 2016 on the first of two large-scale flood risk reduction projects. The Countyline Levee Setback project, which starts at the A Street and Burlington Northern-Santa Fe Railway bridges and goes downstream to the 8th Street Bridge, will provide flood protection to the City of Pacific by removing the existing levee and reconnecting the river with 121 acres of aquatic habitat. Following the completion of the Countyline project, construction is planned to begin in 2018 on the Pacific Right Bank Levee Setback Project along the Pacific City Park boundary to significantly reduce flood risks to the neighboring community.
- **And beyond** – The Flood District is also providing support to Seattle's 14th and Concord Sewer Improvement Project to better manage stormwater in South Park; the McSorley Creek project in Des Moines; and the Green the Green revegetation effort on the Duwamish River, to highlight just a few. The Flood District has also received grant funding from the state to promote a broad approach to floodplain management, called Floodplains By Design, to help begin implementing river corridor plans.

Free Flood Warning App

Get real-time flooding info on your mobile device by downloading this free app that shows current river flows, flood stage data and forecasts plus real-time flood phases. Graphs make it easy to see several days of river data and forecasts.



King County
**FLOOD
ALERT**

Get notified by phone, text message or email when a river near you starts to rise when you sign up for free automated flood alerts. You can personalize alerts by river and flood phase. Go to www.kingcounty.gov/flood or call 206-477-4899.

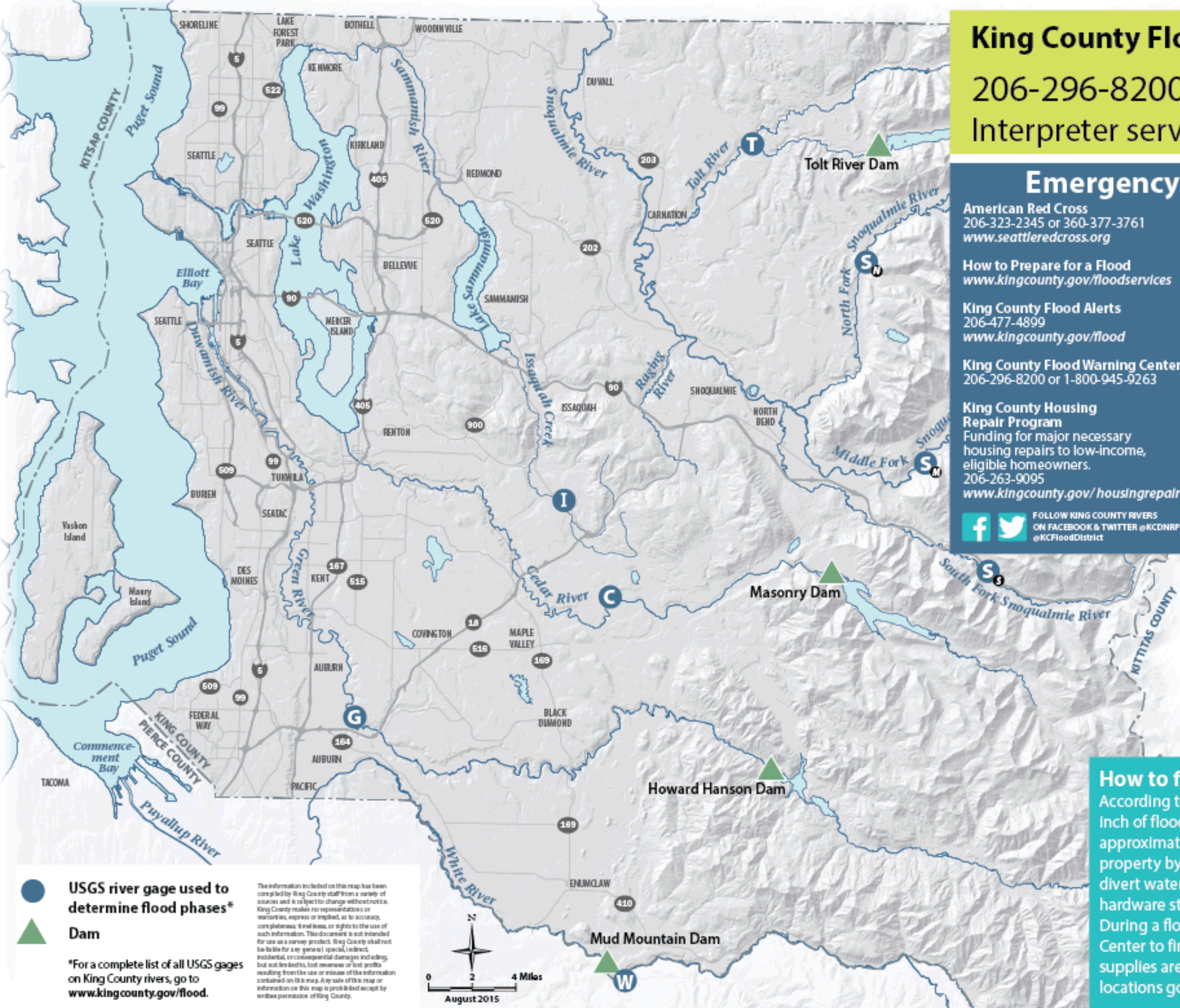


Follow rivers! King County Rivers on Facebook or @KCDNRP or @KCFloodDistrict on Twitter.
www.kingcounty.gov/flood • 206-477-4899

KING COUNTY RIVERS



King County
Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Section



USGS river gage used to determine flood phases*

Dam

*For a complete list of all USGS gages on King County rivers, go to www.kingcounty.gov/flood.

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or reliability of the information. This document is not intended for use as a survey product. King County shall not be liable for any general or specific, indirect, incidental, or consequential damages including, but not limited to, loss of revenue or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

August 2015

King County Flood Warning Center

206-296-8200 or 1-800-945-9263
Interpreter services available. TTY 711

Emergency Flood Information

American Red Cross
206-323-2345 or 360-377-3761
www.seattleredcross.org

How to Prepare for a Flood
www.kingcounty.gov/floodservices

King County Flood Alerts
206-477-4899
www.kingcounty.gov/flood

King County Flood Warning Center
206-296-8200 or 1-800-945-9263

King County Housing Repair Program
Funding for major necessary housing repairs to low-income, eligible homeowners.
206-263-9095
www.kingcounty.gov/housingrepairs

King County Office of Emergency Management - Shelter Information
206-296-3830

King County Road 24/7 Helpline
206-296-8100 or 1-800-KC-Roads
www.kingcounty.gov/roadalert

King County Road Alerts
www.kingcounty.gov/roadalert

Metro Transit Disruptions
www.kingcounty.gov/metro

National Flood Insurance Program
1-888-379-9531
www.floodsmart.gov

Public Health - Seattle & King County - Septic Tank and Well Problems
206-296-4932

Take Winter By Storm
www.takewinterbystorm.org

FOLLOW KING COUNTY RIVERS ON FACEBOOK & TWITTER @KCFloodDistrict



How to fill sandbags

According to the National Flood Insurance Program, one inch of flooding in a 1,000 square foot home can cause approximately \$10,600 worth of damage. Protect your property by using sandbags to create a flood barrier and divert water. Sandbag materials can be purchased from hardware stores and sandbag suppliers in advance. During a flood event, call the King County Flood Warning Center to find out where free emergency sandbag supplies are available. For sandbag instructions and locations go to www.kingcounty.gov/floodservices.

King County's Flood Warning Phases

- PHASE 1:** No flooding typically occurs. King County staff are on alert for a possible flood event.
- PHASE 2:** Minor flooding. The King County Flood Warning Center opens and staff are available 24 hours a day to provide assistance.
- PHASE 3:** Moderate flooding. King County Flood Patrol staff are dispatched to monitor flood protection facilities, such as levees, in person.
- PHASE 4:** Severe flooding. Flood patrols continue to monitor conditions and the Flood Warning Center remains open.



Flood Phases by River

RIVER	1	2	3	4	RECENT PEAK	PEAK FLOOD*
T Tolt River Flow near Carnation	2,500 cfs	3,500 cfs	5,000 cfs	8,500 cfs	13,800 cfs Jan. 2009	17,400 cfs Dec. 1959
S Snoqualmie River Sum of the N North, M Middle and S South forks	6,000 cfs	12,000 cfs	20,000 cfs	38,000 cfs	54,110 cfs Jan. 2009	
I Issaquah Creek - Height (stage) near Hobart Determined by the City of Issaquah based on river height (stage)	6.5 ft.	7.5 ft.	8.5 ft.	9.0 ft.	9.31 ft. Nov. 2006	
C Cedar River Flow near Landsburg	1,800 cfs	2,800 cfs	4,200 cfs	5,000 cfs	7,870 cfs Jan. 2009	14,200 cfs Nov. 1911
G Green River Measured or expected flow near Auburn	5,000 cfs	7,000 cfs	9,000 cfs	12,000 cfs	12,200 cfs Nov. 2006	28,100 cfs Nov. 1959
W White River Flow released from Mud Mountain Dam	5,000 cfs	8,000 cfs	10,000 cfs	12,000 cfs	11,700 cfs Jan. 2009**	28,000 cfs Dec. 1933***

cfs = Cubic Feet per Second – a measure of the volume of water (in cubic feet) that flows past a specific river location each second.

* Before significant dams were constructed.

** Based on U.S. Army Corps of Engineers data on flow releases from Mud Mountain Dam.

*** Reported at White River near Buckley.

Expected Flood Impacts by River

RIVER	PHASE 2	PHASE 3	PHASE 4
T Tolt River Flow near City of Carnation	3,500 cfs San Souci area homes may be inaccessible; 353rd Avenue NE may experience high water depths and velocities where side channels cross the road. The levee on the south bank between Snoqualmie Valley Trail bridge and Highway 203 bridge near NE 3rd Street may experience seepage.	5,000 cfs Increased water depth and velocity over 353rd Avenue NE in San Souci area; water across Tolt River Road NE in vicinity of San Souci neighborhood. Increased seepage and potential backyard flooding at the levee on the south bank between Snoqualmie Valley Trail bridge and Highway 203 bridge near 323rd Place NE.	8,500 cfs Levees may overtop near City of Carnation. Flows from seepage at the levee on the south bank between Snoqualmie Valley Trail bridge and Highway 203 bridge near 323rd Place NE may cross NE 32nd Street. Channel changes may occur between upstream extent of Tolt River Road NE/361st Avenue NE and the eastern boundary of the City of Carnation.
S Snoqualmie River Sum of the N North, M Middle and S South forks	12,000 cfs Lowland flooding. Roads that may overtop include Neal Road SE; Reinig Road; West Snoqualmie River Road NE (Walker Road); Snoqualmie Meadowbrook Road; and Mill Pond Road.	20,000 cfs Flooding of varied depth occurs in the entire Snoqualmie Valley. Roads that may overtop include Fall City-Carnation Road; Tolt Hill Road; and Novelty Flats Road.	38,000 cfs Some residential areas may experience dangerous high velocities and flooding of homes. Roads that may overtop include Woodinville-Duvall Road, Carnation-Duvall Road, and Moon Valley Road.
C Cedar River Flow near Landsburg	2,800 cfs Jones Road near 156th Place SE may overtop and close.	4,200 cfs Lower Dorre Don Way and Byers Road SE may overtop and close. These roads provide access to several neighborhoods where residents may become trapped and require evacuation.	5,000 cfs Additional roads may overtop and close including Cedar Grove Road SE, Maxwell Road SE and SR-169 near the intersection with Cedar Grove Road SE. Dead end streets may overtop and close including Jan Road SE (SE 197th Street), SE 203rd Street, SE 206th Street, and SE 207th Street. Fast and deep flows can create dangerous conditions throughout the floodplain.
G Green River Measured or expected flow near City of Auburn	7,000 cfs Lowland flooding in the valley upstream of the City of Auburn.	9,000 cfs Flooding of varied depths occurs in the valley upstream of Auburn and lower Mill Creek basin. Southeast Green Valley Road and West Valley Road may overtop.	12,000 cfs Critical flood control levees may exhibit seepage and/or weaken from saturation.
W White River Flow released from Mud Mountain Dam	8,000 cfs Red Creek area residents may experience overtopped roads and high water. Overbank flooding in the City of Pacific may occur.	10,000 cfs Red Creek area residents may experience dangerously high velocities, debris flows and residential flooding. Overbank flooding is likely to occur in the City of Pacific.	12,000 cfs Dangerously high velocity and debris flows may occur throughout the river system. Overbank flooding is likely to occur in the City of Pacific and near the City of Auburn. Damages may occur at the fish hatchery near the City of Enumclaw. Floodwater is likely to overtop SR-410 upstream of Mud Mountain Dam near Greenwater.